

CLAIMS:

1. A composition comprising Nogo and Caspr, or mimetics thereof, or a substance capable of promoting interaction between Nogo and Caspr, in combination with a carrier.
2. A composition according to claim 1 wherein the composition comprises a complex between Nogo and Caspr, or a mimetic of said complex.
3. A composition according to claim 1 or claim 2 comprising Nogo-66.
4. A composition according to any one of claims 1 to 3 comprising Caspr1.
5. A composition according to claim 1 wherein the substance capable of promoting interaction between Nogo and Caspr is an antibody.
6. A composition according to claim 5 wherein the antibody is capable of binding to both Nogo and Caspr.
7. A composition according to any one of claims 1 to 6, which is a pharmaceutical composition.
8. A pharmaceutical composition according to claim 7 which is formulated for injection in vivo.
9. A pharmaceutical composition according to claim 8 which is formulated for direct injection into the CNS.
10. A composition according to any one of claims 1 to 9 for use in a method of medical treatment.
11. A composition according to any one of claims 1 to 9 for use in the treatment of injury or disease to the CNS.
12. A composition according to any one of claims 1 to 9 for use in the treatment of SCI, MS, epilepsy or stroke.

13. Use of Nogo in the preparation of a medicament for the treatment of injury or disease to the CNS, wherein the medicament is for administration in combination with Caspr or a mimetic thereof.
14. Use of Caspr in the preparation of a medicament for the treatment of injury or disease to the CNS, wherein the medicament is for administration in combination with Nogo or a mimetic thereof.
15. Use of a substance capable of promoting interaction between Nogo and Caspr in the preparation of a medicament for the treatment of injury or disease to the CNS.
16. A method of stimulating myelination of a neural axon, comprising contacting a neuron or an oligodendroglial cell with a composition according to any one of claims 1 to 9.
17. A method of treating a subject having disease of, or injury to, the central nervous system, comprising administering to the subject a pharmaceutical composition according to any one of claims 7 to 9.
18. A method according to claim 17 wherein the subject has SCI, MS, epilepsy or stroke.
19. A method of screening for a substance capable of modulating interaction between Nogo and Caspr, the method comprising contacting Nogo, Caspr and a candidate substance, and determining the interaction between Nogo and Caspr.
20. A method according to claim 19 further comprising contacting Nogo and Caspr in the absence of said candidate substance under otherwise analogous conditions, and determining the interaction between Nogo and Caspr.
21. A method according to claim 19 or claim 20 comprising contacting a complex between Nogo and Caspr with the candidate substance.

22. A method according to any one of claims 19 to 21 wherein one of Nogo and Caspr is present in or on a cell.

23. A method according to claim 22 wherein said one of Nogo and Caspr is expressed from a vector introduced into said cell.

24. A method according to any one of claims 19 to 23 wherein one of Nogo and Caspr is immobilised on a solid support.

25. A method of manufacturing a pharmaceutical formulation comprising, having identified a substance capable of modulating interaction between Nogo and Caspr by a method according to any one of claims 19 to 24, the further step of formulating said substance with a pharmaceutically acceptable carrier.

26. A method according to claim 25 comprising the further step of optimising said substance for administration in vivo.

27. A method of stimulating differentiation of an oligodendrocyte or precursor thereof, comprising contacting said oligodendrocyte or precursor with F3, NB-3, or a mimetic of either.

28. A method of stimulating myelination of a neural axon, comprising contacting an oligodendrocyte, a precursor thereof, or a neuron, with F3, NB-3, or a mimetic of either.

29. A method according to claim 27 or claim 28 comprising contacting the oligodendrocyte, precursor, or neuron as appropriate, with F3 and NB-3, or mimetics thereof.

30. A method according to claim 29 wherein F3 and NB-3 are present as a complex.

31. A method according to any one of claims 27 to 30 wherein the F3, NB-3 or mimetics thereof bind to Notch on the surface of the oligodendrocyte or precursor thereof.

32. A method according to claim 31 wherein said binding induces Notch signalling.

33. A method according to claim 32 wherein said binding induces Notch 1 or Notch 2 signalling.

34. A method according to claim 32 or claim 33 wherein said Notch signalling is via Deltex-1.

35. A method according to any one of claims 27 to 34 wherein the precursor is an oligodendroglial precursor cell (OPC) or a neural stem cell (NSC).

36. A method according to claim 35 wherein said method is performed in vitro or ex vivo.

37. A method according to claim 36, wherein, after said contacting step, said OPC or NSC is introduced into a subject having disease of, or injury to, the central nervous system.

38. A method according to claim 37 wherein said subject has SCI, MS, epilepsy or stroke.

39. A composition comprising F3 and NB-3, or mimetics thereof, in combination with a carrier.

40. A composition according to claim 39 comprising a complex between F3 and NB-3, or a mimetic thereof.

41. A composition according to claim 39 or claim 40 which is a pharmaceutical composition.

42. A composition according to claim 41 which is formulated for injection in vivo.

43. A composition according to claim 42 which is formulated for direct injection into the CNS.

44. A composition according to any one of claims 39 to 43 for use in a method of medical treatment.

45. A composition according to any one of claims 39 to 43 for use in the treatment of injury or disease to the CNS.

46. A composition according to any one of claims 39 to 43 for use in the treatment of SCI, MS, epilepsy or stroke.

47. Use of F3 and/or NB-3 in the preparation of a medicament for the treatment of injury or disease to the CNS.

48. Use of F3 in the preparation of a medicament for the treatment of injury or disease to the CNS, wherein the medicament is for administration in combination with NB-3 or a mimetic thereof.

49. Use of NB-3 in the preparation of a medicament for the treatment of injury or disease to the CNS, wherein the medicament is for administration in combination with F3 or a mimetic thereof.

50. A method of stimulating myelination of a neural axon, comprising contacting a neuron or an oligodendroglial cell with a composition according to any one of claims 39 to 43.

51. A method of treating a subject having disease of, or injury to, the central nervous system, comprising administering to the subject a pharmaceutical composition according to any one of claims 41 to 43.

52. A method according to claim 51 wherein the subject has SCI, MS, epilepsy or stroke.

53. A method of screening for a substance capable of modulating interaction between Notch and F3 and/or NB-3, the method comprising contacting F3 and/or NB-3, Notch and a candidate substance, and determining the interaction between Notch and F3 and/or NB-3.

54. A method according to claim 53 further comprising contacting Notch and F3 and/or NB-3 in the absence of said candidate substance under otherwise analogous conditions, and determining the interaction between Notch and F3 and/or NB-3.

55. A method according to claim 53 or 54 comprising contacting a complex between Notch and F3 and/or NB-3 with the candidate substance.

56. A method according to any one of claims 53 to 55 wherein one of F3, NB-3 and Notch is present in or on a cell.

57. A method according to claim 56 wherein said one of F3, NB-3 and Notch is expressed from a vector introduced into said cell.

58. A method according to claim 56 or claim 57 wherein Notch is present on a cell surface, and the method comprises determining Notch signalling.

59. A method according to claim 58 comprising determining Notch signalling via Deltex-1.

60. A method according to any one of claims 53 to 59 wherein one of F3, NB-3 and Notch is immobilised on a solid support.

61. A method of manufacturing a pharmaceutical formulation comprising, having identified a substance capable of modulating interaction between Notch and F3 and/or NB-3 by a method according to any one of claims 53 to 59, the further step of formulating said substance with a pharmaceutically acceptable carrier.

62. A method according to claim 61 comprising the further step of optimising said substance for administration in vivo.